



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Title: **Context Driven Topologies**

**What is claimed is:**

11. A system for creating and managing a stateless space for standardizing data and network topologies and integrating computer generated histories wherein data is collectively evaluated to determine which data persists and continues to be distributed over time, comprised of the following:

an assembly process for connecting, breaking apart, and organizing data into groups;

marking groups by time, location, and purpose;

drawing reference arcs;

a topological record keeping function using virtual forms representing relative placement of data components within larger configurations;

a shared memory area for registering, intertwining, tracing, and comparing data histories in infinitely large groups organized by context and location;

control mechanisms for overlaying and streamlining similar data and data arrangements until there are no redundancies to enable the identification and ranking of originals;

an address prioritizing system to characterize data deserving higher placement and broader distribution in future designs and automated assemblies;

compiler/broadcasters seeking and distributing specific information by type as recognized by its topology;

programming standards for broadcasting specified data configurations in context; wherein, Context Driven Topologies remain mathematically the same and recognizable for parallel machine processing of limitless groups in the stateless space regardless of the ways they are simplified and selectively distributed and displayed in real space and time.

12. The system of claim 11, wherein representing the pace and extent of changes between different interpretations of the same data are expressed and analyzed through mathematical configurations, or knots of information, in both fixed and fluid forms.

13. The system of claim 11, wherein machines are measuring the ways people are thinking, imagining, and working using the topologies for tracking which data has made sense together in the past;

wherein machines and networks are proposing data components and ideal configurations while users are designing and constructing new assemblies.

14. The system of claim 11, wherein Context Driven Topologies are building virtual bridges between ideas and information that were not connected in the past;

wherein automated data descriptions leave indelible marks on data;

wherein introducing new combinations into the shared memory area maintains links between data that may or may not be in proximity.

**15. The system of claim 11, wherein new pattern generation and recognition techniques are implemented, demonstrating concurrent and conflicting ideas, information, and points of view becoming entangled;**

**wherein data becomes isolated and separated from background information;**

**wherein groups of people and networks of machines are recognizing the same data differently from different points of view;**

**wherein people are assembling and machines are displaying ideas and information interrelating and being influenced over time from larger, shared points of view.**

**16. The system of claim 11, wherein configuring, deriving and extracting data and data arrangements from dynamic shared data stores is driven by users existing knowledge, era and region, and the machines and networks they are using, influencing the way each user or group of users is looking for data or setting forth a communication goal;**

**wherein all users and devices are given an identity as individuals and networks;**

**wherefore people or machines without identities are not able to realize the entire benefit of the system.**

**17. A registry method comprised of the following steps for fixing assembled topologies into symbols recognized only by machines over networks;**

**wherein boundaries representing information wholes in context are cleaned of potential ideas and information, fixed into a group, and made into a single boundary;**

**wherein boundaries are compressed into fixed symbols to serve as a single character in each components existing unique identifiers including existing URLs, museum object numbers, article and publication numbers, geographic locations and place marks, subject**

matters by area in the shared memory, and adaptable to all information identifiers assigned by information originators and interpreters;

wherein topologies in the symbol state with massive amounts of information inside yet a small description outside look ready to burst, while symbols with infinite complicated and overlapping descriptions but simple information inside is wrinkled, yet from far away both look the same;

wherein boundaries are made of vectors able to scale without pixilation;  
wherein every boundary is continuous and never breaks down while users are interpreting information of different scales through the topologies directly rather than through the original information itself;

wherein the boundaries have no scale because they are every scale;

wherein the boundaries have no inherent thickness, they are built layer by layer or initially connected arc by arc;

wherein fixed boundaries serve as descriptions linking information together as it is streamlining in and out of the shared memory area of the stateless space;

wherein the tools and controls for drawing the boundaries is accomplished through computer graphics processing, operator interface, and selective visual display;

wherein the causes and effects of changing boundaries and fixing them into symbols is accomplished through data and network processing, thus context is driving the topology of data structures and known topologies are standardizing for specified data uses.

**18.** The system of claim 17, wherein Context Driven Topologies in the symbol state are tracing histories of previous context and associations;

wherein infinitely large combinations of symbols and component descriptions are overlaid and compared in fixed states;

wherein groups of people and networks are mapping and emulating fluid continuous histories of hierarchical placements as they are embedding and intertwining between component and configuration descriptions over time;

wherein deriving and assembling histories is compliant with the National Institute of Standards and Technology (NIST) Policy on Traceability wherein traceability requires the establishment of an unbroken chain of comparisons to stated references;

wherein no components or descriptions are ever duplicated;

wherein two or more locations are simply indicated as multiple locations in maps of context;

wherein if user are in the process of deciding and not ready to choose one component over another yet, only the preferred component is shown on top and similar choices are indicated as a stack waiting behind the preferred component or as transparent components gradually stepping back in resolution as similar objects recede in priority until the user decides, canceling redundant and similar background elements;

wherein users define limits on the number of levels and layers presenting, compiling, and being retrieved at any one time by turning layers of information on and off using special controls;

wherein final Context Driven Topologies are captured, and all the layers that are turned off and options that were not chosen are eliminated completely from the fixed assembly.

**19.** The system of claim 17, wherein using Context Driven Topologies as pathways to published data is accomplished and assembled into sets accessible to any number of users in the shared memory area of the stateless space;

wherein mathematically perfect copies of ideas and information are being handed down from generation to generation comprising both content and the techniques required to read it packaged together in the results;

wherein using the streamlining method, duplicative content or techniques are combined for more efficient processing;

wherein consolidating data and network processing techniques typically utilizes the most current version first, except where older versions are required for perceiving data in the method it was made.

**20.** The system of claim 17, wherein referencing and reusing data more often, from more points of view, causes the descriptions to become more complex, intertwined, and irregular;

wherein data repeatedly interpreted in the same manner emits simple, strong and clear signals easily identified and found by untrained users looking for information with a specified purpose, or accidentally discovering while wandering around different areas of the shared memory;

wherein looking around and spending time in shared memory requires the use of input and display devices connected to a network;

wherein each device participates in the record keeping process;

wherein tools for navigating the stateless space and shared memory are driven by relative location, version management, and dynamic purposes as compared to previously addressed static elements of similar types which are internal elements of memory, per se.

**21.** The system of claim 17, wherein using the topologies compares digital objects, spaces, arrangements, and sequences representing new theories and ideas we do not understand with ideas and knowledge we do understand;

wherein revising and improving topologies happens by combining portions of older versions, drawing parallels, creating placeholders, and receiving machine and network suggestions to achieve clarification and obtain a desired performance.

**22.** The system of claim 17, wherein mapping back and forth between known and unknown data configurations over time is generating compact portraits of ideas and depicting changes in comprehension;

wherein larger perspectives are enabled for history to stop repeating itself so both people and machines are learning from past mistakes.

**23.** The system of claim 17, wherein using Context Driven Topologies while discussing new versus old ideas compares previous arrangements;

wherein the life span of knowledge and display patterns, also called filters and templates, is no less than 1,000 years;

wherein subtle variations in topological structure and the automatic audio and visual language are always present in the mathematical patterns because they are constructed and compared for temporal reasons;

wherein aesthetics, proportion, pace, flow, proximity and density become typical, comparable measurements perceivable by machines;

wherein machine measurements and testing enable careful evaluation, periodic maintenance, and long term preservation of data beyond one person, research group, culture, entire field of study, machine, or networks lifetime.

24. The system of claim 17, wherein sets of knowledge patterns, are generally becoming woven together moving backwards in time;

wherein a second set of opposite and related display patterns showing current interests is applied subsequently transforming and simplifying each data arrangement even further;

wherein the topologies selectively delete data and data arrangements that are not cohesive, valuable, true, interesting, attached to or sharing significant histories with other data and data arrangements;

wherein making and using known opposite or rotated topologies exposes and combats specifically redundant, false or misleading ideas and information as defined by people who understand and use the data during the times and in the places it is most active;

wherein concurrent and conflicting interpretations are realistically accommodated gradually causing external descriptions and internal components to influence each others position, eventually canceling each other over time, simplifying the shared memory until only the most accurate and accepted versions persist;

wherein redundant, out of date, misleading and incorrect data and data arrangements are eliminated from dynamic shared data stores;

wherein the process of elimination is activated by isolating and identifying non-original copies and non-meaningful variations automatically masking, deleting and concealing excess information using the related patterns to map back and forth from archived to actually used until the redundant, misleading or incorrect information, ideas and



techniques are exposed and removed in both the users current data arrangement and across more levels over longer periods of time.

**25.** The system of claim 17, wherein connections between data originating deep in the background begins gently pushing, precisely aligning, and locking relative proportion and placement of data and data arrangements into approved groups;

wherein typical group arrangements are causing data to characterize, data relationships are automatically become more organized, settling in and clustering where they fit together best.

**26.** A method wherein Context Driven Topologies interact freely in the stateless space in pure form;

wherein the topologies are streamlining and consolidating data into and out of new patterns and forms in shared memory;

wherein fluid multidimensional waveforms are translated out from fixed mathematical records continuously updating and openly distributing data, similar to existing radio;

wherein new generations of knowledge and display patterns are evolving.

**27.** The system of claim 26, wherein Context Driven Topologies are operating independently from electrical pulses or media being initially powered by being passed around and used for passing stories and songs across generations and propagating information across the Internet;

wherein defined and approved groups of ideas and information are displaying through an evolving automatic language of light and sound, textures, colors and forms;

wherein the language is leading people and machines to original information precisely regenerated in context.

**28.** The system of claim 26, wherein Context Driven Topologies making complex digital collections easier for people to look through by driving networked topologies to the highest quality data using optimal techniques, in specified sequences and arrangements against particular backgrounds established by data originators and perfected by subsequent data interpreters;

wherein purer forms lead to faster more wide spread distribution and retrieval.

**29.** The system of claim 26, wherein Context Driven Topologies are becoming like real objects people form attachments to and begin preferring certain patterns and forms over others;

wherein human perception, aesthetics, and performance requirements for networks and machines are all affected;

wherein Context Driven Topologies are enabling people to understand, and causing machines to register, more information about fluidity, objects, spaces, and topologies;

thus forcing the development of new methods of drawing, mapping, specifying performance requirements and improving performance to accurately portray data becoming mixed and separated as they are processed by machines over networks.

**30.** The system of claims 11, 17, and 26, wherein Context Driven Topologies are continuously broadcast and kept alive by being referenced;

wherein searchers are automatically led to improved results in context by driving networked topologies to the historically highest priority addresses, master recordings, original high resolution still and moving imagery, partially interpreted or raw results;

wherein topologies identify the locations of genuine events, objects and living beings;

wherein the topologies are capturing pure mathematical relationships not yet associated with images, words, or assigned values;

wherein the system is helping us, as individuals and a global society, working with, weeding out, and controlling data to create bigger pictures and capture elusive beauty;

wherefore over enough time, using enough data, the methods set forth show which data and data arrangements are most interesting, correct, unique and worth preserving for further contemplation using new knowledge and new machines in the future.